

## **UofA Professor Wins the 2010 Canadian Award in Telecommunications Research.**

The Canadian Award for Telecommunications Research (CATR) is a career award that recognizes outstanding Canadian researchers as demonstrated by their impact on telecommunications research. The award is normally made every two years at the Biennial Symposium on Communications held at Queen's University in Kingston, Ontario or at the Canadian Workshop on Information Theory. Dr. Beaulieu was presented with an engraved gold medal at the 25<sup>th</sup> *Biennial Symposium on Communications* in Kingston, Ontario on May 13, 2010. Since the inception of the award in 1990, this is the first time in the award's 20 year history that the award has been given to a recipient west of Ontario.

The CATR Awards Committee was very pleased to announce that the 2010 award recipient is Professor Norman C. Beaulieu, iCORE Research Chair of the University of Alberta, for fundamental contributions to the in-depth understanding, analysis, and design of wireless communications systems. His major research contributions, cited by others over 5,500 times, include the development of what is now termed the "Beaulieu Series", a method to compute error rates, outage and coverage in communications systems with inter-symbol and co-channel interference, practical diversity system design analysis, analysis and understanding of decision feedback equalizers, development of an improved Nyquist pulse, where its application to OFDM systems is now a Motorola-owned patent, as well as the development, in collaboration with Damen and El Gamal, of threaded algebraic space-time (TAST) codes, which have been patented and incorporated into the IEEE 802.16e (WiMax) standard. Dr. Beaulieu's research, through hundreds of publications, has advanced available analysis techniques, widely influenced current communications research methodology, and seeded much subsequent work by others.

Professor Beaulieu obtained the B.A.Sc., M.A.Sc., and Ph.D. degrees from the University of British Columbia in 1980, 1983 and 1986, respectively. He was on the faculty in the Department of Electrical and Computer Engineering at Queen's University from 1986 to 2000 and cross-appointed to the Department of Mathematics and Statistics from 1995-2000. He has been Canada Research Chair and iCORE Research Chair in Broadband Wireless Communications at the University of Alberta from 2001-2007 and from 2000-present, respectively. He is Fellow of IEEE, Fellow of the Royal Society of Canada, Fellow of the Engineering Institute of Canada, and Fellow of the Canadian Academy of Engineering. He has won the IEEE Communications Society Edwin Armstrong Award Achievement Award, the AST Leadership Foundation's Outstanding Leadership in Alberta Technology Award, and the Reginald Audrey Fessenden Silver Medal in 2010. He has also won an IEEE Prize Paper Award at the *IEEE International Conference on Ultra-Wideband (ICUWB)* in 2006 and an IEEE Prize Paper Award at the *IEEE International Communications Conference (ICC)* in 2010. He was featured in TIME Magazine in August 15, 2005.

Dr. Beaulieu has not only been recognized on numerous occasions within the communications field, but has been recognized as a preeminent engineering researcher both nationally and internationally, transcending the boundaries of communications and electrical engineering. Examples of such recognition includes the Natural Sciences and Engineering Research Council of Canada E.W.R. Steacie Memorial Fellowship, the first electrical engineer in 15 years to win this interdisciplinary Canadian award, the K.Y. Lo Medal of the Engineering Institute of Canada for outstanding contributions at the international level, the Thomas W. Eadie Medal of the Royal Society of Canada in recognition of major contributions to engineering or applied science, and the J Gordin Kaplan Award for Excellence in Research, the most prestigious research award at the University of Alberta, where only four winners have been engineers since its inception in 1982.